Montgomery County
RainScapes Rewards Rebate
Rain Garden

Requirements and Important Information

The steps to get a rebate for your RainScapes installation are listed below. The rebate check will be issued by the Department of Finance. Please note that a social security number or taxpayer ID is required to process the rebate payment through the County Government financial system. **This is protected information deemed confidential.**

All decisions regarding eligibility of applications and processing of applications are final and are at the sole discretion of the Department of Environmental Protection.

Before you begin your project	
	When planning your project, ensure that it follows the design guidelines and criteria included within the application. This is important in order to be eligible for rebates.
	Make sure you have written approval from the RainScapes Rewards Planner before you begin installation or construction. Projects that are partially or completely finished before approval will not qualify for rebates. Allow three weeks for processing and wait to receive application approval from the Department of Environmental Protection. Contact us at RainScapes.application@montgomerycountymd.gov or call 311 if you have not received a response three weeks after you submitted an application.
	You will be contacted by the Department of Environmental Protection to schedule the mandatory, preliminary site inspection if your application is approved
	Projects must be installed within six months of the preliminary inspection date.
	Compile all necessary documentation outlined in the application. Submit the application, photos, and required documentation. The applicant is responsible for obtaining any necessary permits.
	Diagram or site plan showing location of the garden on the property; photos may also be used if the proposed location is marked. Take a “before” photo of the proposed project area (up to six photos may be submitted. Please compress photos to reduce file size). If you cannot take pictures at this time, you may skip the upload and email the photos to RainScapes.application@montgomerycountymd.gov. Please indicate your Application ID in the email.
	For rain gardens and tree plantings, you must contact MISS UTILITY and have the project area marked prior to site inspection.
	If you live in an HOA community, provide a letter or other documentation showing

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	HOA approval of project.
	Detailed Planting Plan (scale of 1/8" = 1' or ¼" = 1' or 1" =10') (Submit for review and approval before construction; it can be submitted before or after the site inspection/site approval)
Upon completion of your project	
	Contact the Department of Environmental Protection at RainScapes.application@montgomerycountymd.govto schedule a mandatory final inspection. Inspections will generally be scheduled within 10 business days. At the final inspection, correct installation of the project will be verified, and the project area will be photographed.
	Please remember to submit, prior to final inspection, itemized receipts, contractor bills and/or invoices for all project costs. Invoices/billing documentation must be submitted for the entire rebate amount requested. Photocopies are acceptable. Email them to RainScapes.application@montgomerycountymd.gov. Please indicate your Application ID in the email. Without this information, the rebates cannot be processed.
	If all requirements are met, the rebate will be approved, and a check will be issued by the County Department of Finance within three to six weeks.

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Rain Gardens Design Criteria & Guidelines for Project Eligibility

rev. 1/10, 7/10

***** The following basic guidelines and criteria will be periodically updated to ensure currency with the latest technical information and best practices – please verify that you have the latest version! *****

(A detailed Rain Garden Installation Manual is being developed for Montgomery County)

- All Rain Gardens are designed to temporarily pond water.
- Only gardens outside of the public right of way will be considered at this time
- Rain gardens shall be located a minimum of 10' from buildings, located down gradient of nearby foundations, and oriented perpendicular to the direction of flow in such a way as to intercept the surface water flowpath.
- Observe how water flows on your property during a rain and map the paths. Your rain garden should sited above where flow paths come together
- A test pit is required to evaluate adequate drainage.
  - Conduct the drainage test (perc test):
    - Dig a hole at least 2 ft. deep in the location you plan for the rain garden, about a foot or so wide
    - Fill the hole with water and monitor the time it takes to drain
    - Fill the hole again and time the second drainage.
    - If the hole does not drain completely within 24 to 36 hours on the second filling, you will need to identify a different location or modify the rain garden to improve drainage. Discuss the options with DEP staff or a qualified contractor.
- Soil mix must conform to Montgomery County Department of Permitting Services (MCDPS) bioretention specs, or the following locally available mix:
  - 50% washed coarse sand (e.g. ASTM # 33), 25% organic (Leafgro) or shredded hardwood mulch, 25% topsoil
- The bottom of the rain garden must not be compacted during installation – hand equipment, or light-weight machinery shall be used, and the bottom broken up with a rototiller or pick prior to adding soil mix
- The rain garden excavation must be either 18", 30", or 42" deep, including the ponding space above the planting media, with a flat bottom (ponding space above is typically 6", with 24" of the rain garden soil mix below).
- **Rain gardens should be designed to treat the 1-YR, 24-hour storm depth (2.7 inches of rain fall) for the area draining to the rain garden. Other rainfall depths will be considered, based on location, soil permeability, and design factors, with no less than 1.25" rainfall depth as a treatment target.**

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Appendix A. **Rain Garden Site Sizing Chart:** **Inches of Rainfall Captured Shown in the Cells**

Rain Garden Area (SF)	1 Foot Planting Bed						2 Foot Planting Bed						3 Foot Planting Bed					
	Impervious drainage area (SF)						Impervious drainage area (SF)						Impervious drainage area (SF)					
	100	200	300	400	500	600	100	200	300	400	500	600	100	200	300	400	500	600
10	0.8						1.1	0.6					1.5	0.8	1.5			
15	1.2	0.6					1.7	0.9	0.6				2.3	1.1	0.8	0.6	0.5	
20	1.6	0.8	0.5				2.4	1.2	0.8	0.6	0.5		3.2	1.6	1.0	0.8	0.6	0.5
25	2.1	1.0	0.7	0.5			3.0	1.5	1.0	0.8	0.6	0.5	4.0	2.0	1.3	1.0	0.8	0.7
35	3.0	1.5	1.0	0.8	0.6	0.5	4.3	2.2	1.4	1.1	0.9	0.7	5.7	2.8	1.9	1.4	1.1	0.9
50	1.5	2.2	1.5	1.1	0.9	0.7	6.1	3.2	2.1	1.6	1.3	1.1	8.3	4.1	2.7	2.1	1.7	1.4
75	7.0	3.5	2.3	1.7	1.4	1.2	9.8	4.9	3.2	2.4	1.9	1.6	13	6.3	.4.2	3.2	2.5	2.1
100	9.5	4.8	3.2	2.4	1.9	1.6	13	36.6	4.4	3.3	2.7	2.2	17	8.5	5.7	4.3	3.4	2.8

Determine the rain garden area (SF) needed for the amount of impervious area you intend to treat. – Dimensions below the red line meet the rebate program goals. The 2 Foot Planting Bed referenced in the chart above, is the most typical.

- At least 75% of the plants must be native to the ecoregion (or cultivars), based on information provided in:
  - RainScapes Plants for Rain Gardens http://www.montgomerycountymd.gov/content/dep/downloads/rainscapesplantlist09.pdf
  - 'Native Plants for Wildlife Habitat and Conservation Landscaping, Maryland Piedmont Region'. US Fish and Wildlife Service. May 2001. http://www.nps.gov/plants/pubs/nativesMD/info.htm
  - 'Native Plants for Central Maryland Landscapes, Piedmont and Inner Coastal Plain'. Maryland Native Plant Society. May 1999. http://www.mdflora.org/publications/natplantsframe.html
- Plants for rain gardens using bioretention mix for the planting media should be capable of extremes of drought and flooding. This growing media is typically very dry due to excellent drainage through the media.
- No plugs may be used, plant stock should be minimum quart size, gallon size recommended; planting densities typically should be 1 plant per 1 to 2 square feet (dependent on species) for herbaceous plants. Woody plants will be spaced 25% closer than typical landscape applications.
- Cover soil surface with 3" depth of shredded hardwood mulch

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NOTE: if you cannot excavate or do not have the drainage rate required for a rain garden, then consider creating a shallow rain garden as part of a Conservation Landscaping Rebate project. All rain gardens require overflows and shallow rain gardens will be more prone to overflow so, the overflow area must be sufficient to accommodate that.

For example, RG which is 230 square feet (sf) but only 6" deep with compost amendments can be expected to capture about 688 gallons of runoff water (vs. the 2' deep rain garden which will process 2" of rain (or 1416 gal of water). This is sufficient to capture and treat the first 1" of rain from an 1150 sf roof. The overflow area should be approximately 270 sf.

see also: www.lowimpactdevelopment.org/raingarden_design for links to several design manuals and templates)

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Appendix B: Rain Garden Sizing Worksheet Alternative for determining your Rain Garden Size (RG). Use for complicated drainage conditions.

This worksheet provides sizing based on treatment goal of 2.7" of rain event (1-YR, 24hr storm event) for situations when you have a more complicated drainage condition than the method in item 4 of this application. Minimum treatment goal is 1.25". (Otherwise, please refer to the Rain Garden Site Sizing Chart – Appendix A)

- Measure the hard surfaces that cannot soak up water **(impervious area)** that will shed water towards your rain garden area **(rooftop and non-roof impervious areas)**
- All measurements are to entered in square feet **(SF)**

Items A, B, C & D below refer to drainage on your property. Item D is optional if the rain garden is within 30 feet of the house/impervious area that will drain to the rain garden.

A.	Rooftop area which drains to proposed rain area	**List square feet (SF)**	
B.	Impervious non-roof surface area (SF of sidewalk, driveway, patio, etc.) which drains to proposed rain garden area	**List square feet (SF)**	
C.	**Add the SF from A & B to determine the Total On-site impervious Drainage Area (SF): A + B =**	**Add answers from A and B, list total**	
D.	Grass and/or vegetated area which drains to proposed rain garden area (If the RG is more than 30' from the impervious area)	**List square feet (SF)**	

Items E, F, G & H refer to situations where you are trying to soak up water that is currently flowing onto your property from off-site. You can leave these blank if you are only dealing with on-site water.

E.	Impervious area SF which drains to proposed rain garden area from other lots (roofs, patios and driveways	**List square feet (SF) of impervious area**	
F.	Roadway and/or sidewalk drainage which drains to proposed rain garden area	**List square feet (SF)**	
G.	Add the SF from E & F to determine Total Offsite Impervious Drainage to Rain Garden Project area (SF): E + F =	**Add answers from E and F, list total**	
H.	Grassy area which drains to proposed rain garden area from other lots	**List square feet (SF) of grassy area**	

Size and Dimensions of Rain Garden (RG)

			RG Size
a.	**Size and Dimensions of Rain Garden (RG): 20% of the impervious SF from C is used to determine the rain garden size. If you have no other drainage coming to your garden, this is the final size (enter SF)**	**Multiply .20 x C and list SF at right**	

Off Site Drainage Coming into the Rain Garden?

If the rain garden has offsite drainage which runs into the rain garden area and/or the rain garden is more than 30' from the house, then you will need to size the rain garden accordingly or provide an on-site overflow area so that you do not direct water onto someone else's property.

			Alternate RG Size
b.	**Size and Dimensions of Rain Garden, if there is offsite drainage from impervious surfaces:**	**Multiply .20 x (C+G) and list SF to right**	

If there is offsite grassy drainage and/or the garden is more than 30' from the impervious area, then add a SF amount using the answers from D and H,

			Additional Area
c.	**Additional area to add to either 1 or 2 above if there is offsite drainage from grassy surfaces to Rain Garden Area**	**Multiply .08 x (D+H) and list SF to right**	